

Evaluation of mask associated dry eye in patients with frequent mask use referred to the emergency department of Imam Reza hospital

Abstract

Background: With the start of the Covid-19 pandemic, due to concerns about the transmission of the disease, the use of face masks has increased significantly all over the world. During this period, we observed a significant increase in eye irritation and dryness among consistent mask wearers.

Aim: The purpose of this study was to investigate dry eyes in patients referred to the eye clinic of Imam Reza Hospital in Ardabil who frequently use masks.

Materials and methods: Patients referred to the eye clinic of Imam Reza Hospital in Ardabil were included in this study if they met the conditions to enter the study. Patients were divided into two groups, continuous users and intermittent users, based on how they used the mask. Patients participating in the study, in addition to demographic information, completed the DEQ-5 questionnaire. Schirmer test was also performed for all patients participating in this study. After collecting the data, it was entered into SPSS26 software to be analyzed.

Results: Results: 255 people participated in this study, of which 90 (35.3%) were men. The average daily duration of mask use in 147 people (57.6%) was more than 6 hours a day, and the most common type of mask used in 176 cases (69%) was a surgical mask. The majority of participants had mild dryness (in 87 people (34.1%)) and moderate dryness (in 43 people (16.9%)). Feeling of eye discomfort, feeling of dry eyes and the overall score of the DEQ-5 questionnaire were significantly different in both genders. Using a mask for a longer time and the type of mask used had no significant relationship with the score of the DEQ-5 questionnaire.

Conclusion: In women, a significant increase in dry eye symptoms was observed subjectively, but at the same time, there was no correlation between the duration of mask use and the type of mask used with the objective results.

Key words: Mask - Dry eyes – Covid19